

Mr. Christopher Heaton
Safety/Environmental Manager
Adorn, Inc.
1808 West Hively Avenue
Elkhart, Indiana 46517

Re: **039-11565**
First Significant Permit Modification to
Part 70 No.: T 039-7650-00324

Dear Mr. Heaton:

Adorn, Inc., was issued a permit on October 6, 1998 for a wood furniture manufacturing operation. A letter requesting changes to this permit was received on September 3, 1999. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

As a result of this permit modification, the following changes have been made to the Part 70 operating permit (strikeout indicates deleted language, and new language is bolded);

1. The title page of the Part 70 permit has a second box added to identify this permit modification. It appears as follows:

First Significant Permit Modification: 039-11565	Pages Affected: 3, 5, 6, 28, 29, 30, 31, 32, 34, 37
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

Also on this page, the IDEM has deleted a rule cite that is no longer necessary in the second paragraph. This paragraph now reads as follows:

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and ~~326 IAC 2-1-3.2~~ as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

2. In Section A.2, Emission Units and Pollution Control Equipment Summary, Plant 1 has the following changes beginning with part (e):
 - (e) ~~One (1) stain spray booth, with a maximum capacity of 500 units per hour, utilizing a high volume low pressure (HVLP) application system, with dry filters for control of particulate matter, and exhausting to one (1) stack, identified as E2;~~ **One (1) dualtech automated back sealing machine, identified as D1, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D2, exhausting to stack A1, a flash off tunnel exhausting to stack A2, and a hot air drying tunnel exhausting to stack A3.**
 - (f) ~~One (1) sealer spray booth, with a maximum capacity of 500 units per hour, utilizing a high volume low pressure (HVLP) application system, with dry filters for control of particulate matter, and exhausting to one (1) stack, identified as E3;~~ **One (1) rototech automated staining**

machine, identified as D3, with a maximum capacity of 3,900 board feet per hour, consisting of twenty (20) airless/air assist spray guns, with PM emissions controlled by dry filters, exhausting to stacks A4 and A5, and an infrared drying tunnel exhausting to stack A6.

- (g) ~~One (1) topcoat spray booth, with a maximum capacity of 500 units per hour, utilizing a high volume low pressure (HVLP) application system, with dry filters for control of particulate matter, and exhausting to one (1) stack, identified as E4;~~ **One (1) dualtech automated sealing machine, identified as D4, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D5, exhausting to stack A7, with a flash off tunnel and a hot air drying tunnel exhausting to stack A8.**
- (h) ~~One (1) MDF board laminating machine, utilizing a rollcoat application system, with a maximum capacity of 70 units per hour, and exhausting to one (1) stack, identified as C5;~~ and **One (1) dualtech automated finishing machine, identified as D6, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D7, exhausting to stack A9, a flash off tunnel exhausting to stacks A10 and A11, a hot air drying tunnel exhausting to stack A12, and one (1) non-heated cooling hood exhausting to stack A13.**
- (i) ~~One (1) Corian surface coating line, utilizing a hand application method, with a maximum capacity of 0.75 units per hour, and exhausting to one (1) stack, identified as C5.~~ **One (1) manual touch up booth, identified as TU1, with a maximum capacity of 1 gallon of stain, 2 gallons of sealer, and 2 gallons of topcoat per day, consisting of one (1) airless/air assist gun, with dry filters for control of particulate matter, exhausting to one (1) stack TU1.**
- (j) One (1) MDF board laminating machine, utilizing a rollcoat application system, with a maximum capacity of 70 units per hour, and exhausting to one (1) stack, identified as C5; and
- (k) One (1) Corian surface coating line, utilizing a hand application method, with a maximum capacity of 0.75 units per hour, and exhausting to one (1) stack, identified as C5.
- (l) **Two (2) denibbers for D1, with maximum capacities of 3,900 board feet per hour with PM emissions collected by cyclone C5.**
- (m) **One (1) denibber for D4, with a maximum capacity of 3,900 board feet per hour, with PM emissions collected by cyclone C5.**

Plant 2 (Nagy Drive):

- (~~j~~n) Four (4) wood wrapping machines, with a maximum capacity of 280 pounds of wood styles per hour, and exhausting inside the building;
- (~~k~~o) One (1) wood panel laminating machine, with a maximum capacity of 1,500 pounds of wood panels per hour, and exhausting inside the building; and
- (~~h~~p) One (1) gypsum sheet laminating machine, with a maximum capacity of 2,250 pounds of gypsum sheets per hour, and exhausting inside the building.

Also, the new equipment above has been added to the description boxes for Sections D.1 and D.2, accordingly. And upon further review, the IDEM has also added a statement to these description boxes in parentheses as follows:

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

3. The hot water boilers are being added to Condition A.3, Specifically Regulated Insignificant Activities, as follows:
 - (a) One (1) natural gas-fired boiler, rated at 0.4 MMBtu/hr, and exhausting to stack B1; ~~and~~
 - (b) Three (3) natural gas-fired radiant heaters, each rated at 0.2 MMBtu/hr, and exhausting to stacks H1, H2 and H3, respectively; **and**
 - (c) **Three (3) natural gas-fired hot water boilers, identified as AB1, AB2, and AB3, with each rated at 1 MMBtu per hour, exhausting to stacks AB1, AB2, and AB3, respectively.**

These hot water boilers have also been added to the equipment description box for Section D.3 along with the statement below:

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

4. To incorporate the new surface coating units listed in Minor Source Modification 039-11334 into the existing usage limit for VOC, Condition D.1.1, PSD Minor Limit, has been modified to read as follows:

The automated staining, back sealing, and sealing machines, and the touch-up booth, and pPursuant to CP-039-8835-00324, issued on December 29, 1997 ~~these the remaining surface coating~~ facilities shall not exceed 41,500 pounds of VOC, including coatings, adhesives, dilution solvents, and cleaning solvents, per month. This usage limit is required to limit the potential to emit of VOC to less than 250 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

5. In Condition D.1.2, Volatile Organic Compounds, part (a) shall be modified to read as:

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets in the MDF laminating machine, Corian process, **the dualtech automated back sealing machine, the rototech automated staining machine, the dualtech sealing machine, and the touch-up booth** ~~the stain, sealer, and topcoat booths~~ shall utilize one of the following application methods:

6. In Condition D.1.4, Particulate Matter (PM), the new automated machines and the touch-up booth have been added in the first paragraph, and the reference to the old booths have been deleted as follows:

Pursuant to **326 IAC 6-3-2 the dualtech automated back-sealing, the rototech automated staining, the dualtech sealing machines, and the touch-up booth, and pursuant to** CP-039-4472-00324, issued on August 8, 1995, CP-039-4803-00324, issued on November 14, 1995, and CP-039-8835-00324, issued on December 29, 1997, the PM from the laminating machines and ~~surface coating booths~~ **the adhesive booth, E1** shall not exceed the pound per hour emission rate established as E in the following formula:

7. Condition D.1.10, Particulate Matter (PM), now has a part (b) as follows to accommodate the addition of the dualtech water walls and scrubbers, and the rototech, and touch-up booth dry filters:

(a) Pursuant to CP-039-4472-00324, issued on August 8, 1995, CP-039-4803-00324, issued on November 14, 1995, and CP-039-8835-00324, issued on December 29, 1997, the dry filters and baghouse/cyclone system for PM control shall be in operation at all times when the associated equipment is in operation.

(b) **The dry filters, water walls and scrubbers for PM control for the automated surface coating machines and the touch-up spray booth shall be in operation at all times when the associated equipment is in operation.**

8. The first two sentences of part (a) in Condition D.1.11, Monitoring, have been changed to read as:

Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters, **and to verify the correct operation of the water walls and the correct flow of water to the water walls.** To monitor the performance of the ~~dry filters~~ **PM controls, daily weekly** observations shall be made

of the overspray from the surface coating ~~booths~~ stacks E1, E2, E3; while one or more of these ~~booths~~ **processes** are in operation.

And the first two sentences of part (b) have been changed to:

~~Weekly~~ **Monthly** inspections shall be performed of the coating emissions from **all surface coating** stacks E1, E2, E3, E4 and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for ~~this unit~~ **these units** shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed.

9. Because several of the new surface coating machines utilize scrubbers for PM control, the following conditions have been added to the Compliance Monitoring section of Section D.1:

D.1.12 Parametric Monitoring

The Permittee shall record the total static pressure drop across the scrubbers used in conjunction with the automated surface coating operations, at least once per shift when the associated machines are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the scrubbers shall be maintained within the range of 1 and 3 inches of water, or a range established for each during the latest stack tests. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.1.13 Scrubber Inspections

An inspection shall be performed each calendar quarter of the scrubbers controlling the surface coating finishing operations when venting to the atmosphere. A scrubber inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.1.14 Scrubber Failure

In the event that scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Also, the Table of Contents has been changed to accommodate these new conditions, and all subsequent conditions in this section have been renumbered accordingly.

10. As a result of these added conditions, Condition D.1.12, now D.1.15, part (e) has been changed to read as follows, and the previous part (e) is now part (f):

(e) ~~All records shall be maintained in accordance with Section C -- General Record Keeping Requirements, of this permit.~~ **To document compliance with Condition D.1.12, the Permittee shall maintain the following:**

- (1) **Records, taken once per shift, of the following operational parameters during normal operation when venting to the atmosphere:**
 - (A) **Inlet and outlet differential static pressure; and**
 - (B) **Cleaning cycle: frequency and differential pressure.**
- (2) **Documentation of all response steps implemented, per event.**

- (3) **Operation and preventive maintenance logs, including work purchases orders, shall be maintained.**
 - (4) **Quality Assurance/Quality Control (QA/QC) procedures.**
 - (5) **Operator standard operating procedures (SOP).**
 - (6) **Manufacturer's specifications or its equivalent.**
 - (7) **Equipment "troubleshooting" contingency plan.**
 - (8) **Documentation of the dates vents are redirected.**
- (f) **To document compliance with Condition D.1.13, the Permittee shall maintain records of the results of the inspections required under Condition D.1.13, and the dates the vents are redirected.**
- (g) **All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

11. In Section D.3, Condition D.3.1, Particulate Matter (PM), the first paragraph has been changed to include the new boilers as follows:

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from the natural gas-fired boilers and each of the radiant heaters shall be limited to 0.6 pounds per MMBtu heat input **when Q equals 4 MMBtu per hour.**

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Melissa Groch, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Melissa Groch or extension 3-8397, or dial (317) 233-8397.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

MMG

cc: File - Elkhart County
U.S. EPA, Region V
Elkhart County Health Department
Northern Regional Office
Air Compliance Section Inspector - Ray Schick
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**Adorn, Inc.
1808 West Hively Avenue
Elkhart, Indiana 46517**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T039-7650-00324	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: October 6, 1998

First Significant Permit Modification: 039-11565	Pages Affected: 3, 5, 6, 28, 29, 30, 31, 32, 33, 34, 37
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

- C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
- C.13 Monitoring Methods [326 IAC 3]

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]
- C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5]
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)]
- C.19 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]
- C.20 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]
- C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

Stratospheric Ozone Protection

- C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

D.1 FACILITY OPERATION CONDITIONS - Laminating/Surface Coating

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
- D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]
- D.1.3 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]
- D.1.4 Particulate Matter (PM) [326 IAC 6-3-2(c)]
- D.1.5 Work Practice Standards [40 CFR 63.803]
- D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)]
- D.1.8 Volatile Organic Compounds (VOC)
- D.1.9 VOC Emissions

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

- D.1.10 Particulate Matter (PM)
- D.1.11 Monitoring
- D.1.12 Parametric Monitoring
- D.1.13 Scrubber Inspections
- D.1.14 Scrubber Failure

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- D.1.15 Record Keeping Requirements
- D.1.16 Reporting Requirements

D.2 FACILITY OPERATION CONDITIONS - Woodworking Operations

Emission Limitations and Standards [326 IAC 2-7-5(1)]

- D.2.1 Particulate Matter (PM) [326 IAC 6-3]
- D.2.2 Particulate Matter (PM) [326 IAC 2-7-5(1)]
- D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements

- D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary wood counter top and cabinet manufacturing source.

Responsible Official: Todd Cleveland
Source Address: 1808 West Hively Avenue, Elkhart, Indiana 46517; and
57420 Nagy Drive, Elkhart, Indiana 46517
Mailing Address: 1808 West Hively Avenue, Elkhart, Indiana 46517
SIC Code: 2499
County Location: Elkhart
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Minor Source, under PSD Rules;
Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

Plant 1 (W. Hively Avenue):

- (a) Woodworking equipment, with a maximum throughput of 25,000 pounds of wood per hour, using a cyclone/baghouse system to control particulate, and exhausting to one (1) stack, identified as B2;
- (b) Woodworking equipment, with a maximum throughput of 25,000 pounds of wood per hour, using a cyclone/baghouse system to control particulate, and exhausting to one (1) stack, identified as C5;
- (c) One (1) sawdust storage silo, with a capacity of 690 cubic yards, collecting sawdust from the control equipment, and venting to the atmosphere through one (1) cyclone, identified as C5;
- (d) One (1) adhesive spray booth and one (1) wood wrapping press, with a maximum capacity of laminating 39.143 linear feet per hour, utilizing a high volume low pressure (HVLV) application system, with dry filters for control of particulate matter, exhausting to one (1) stack, identified as E1;
- (e) One (1) dualtech automated back sealing machine, identified as D1, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D2, exhausting to stack A1, a flash off tunnel exhausting to stack A2, and a hot air drying tunnel exhausting to stack A3.
- (f) One (1) rototech automated staining machine, identified as D3, with a maximum capacity of 3,900 board feet per hour, consisting of twenty (20) airless/air assist spray guns, with PM emissions controlled by dry filters, exhausting to stacks A4 and A5, and an infrared drying tunnel exhausting to stack A6.
- (g) One (1) dualtech automated sealing machine, identified as D4, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D5, exhausting to stack A7, with a flash off tunnel and a hot air drying tunnel exhausting to stack A8.

- (h) One (1) dualtech automated finishing machine, identified as D6, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D7, exhausting to stack A9, a flash off tunnel exhausting to stacks A10 and A11, a hot air drying tunnel exhausting to stack A12, and one (1) non-heated cooling hood exhausting to stack A13.
- (i) One (1) manual touch up booth, identified as TU1, with a maximum capacity of 1 gallon of stain, 2 gallons of sealer, and 2 gallons of topcoat per day, consisting of one (1) airless/air assist gun, with dry filters for control of particulate matter, exhausting to one (1) stack TU1.
- (j) One (1) MDF board laminating machine, utilizing a rollcoat application system, with a maximum capacity of 70 units per hour, and exhausting to one (1) stack, identified as C5; and
- (k) One (1) Corian surface coating line, utilizing a hand application method, with a maximum capacity of 0.75 units per hour, and exhausting to one (1) stack, identified as C5.
- (l) Two (2) denibbers for D1, with maximum capacities of 3,900 board feet per hour with PM emissions collected by cyclone C5.
- (m) One (1) denibber for D4, with a maximum capacity of 3,900 board feet per hour, with PM emissions collected by cyclone C5.

Plant 2 (Nagy Drive):

- (n) Four (4) wood wrapping machines, with a maximum capacity of 280 pounds of wood styles per hour, and exhausting inside the building;
- (o) One (1) wood panel laminating machine, with a maximum capacity of 1,500 pounds of wood panels per hour, and exhausting inside the building; and
- (p) One (1) gypsum sheet laminating machine, with a maximum capacity of 2,250 pounds of gypsum sheets per hour, and exhausting inside the building.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) One (1) natural gas-fired boiler, rated at 0.4 MMBtu/hr, and exhausting to stack B1;
- (b) Three (3) natural gas-fired radiant heaters, each rated at 0.2 MMBtu/hr, and exhausting to stacks H1, H2 and H3, respectively; and
- (c) Three (3) natural gas-fired hot water boilers, identified as AB1, AB2, and AB3, with each rated at 1 MMBtu per hour, exhausting to stacks AB1, AB2, and AB3, respectively.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Plant 1:

- (a) One (1) adhesive spray booth and one (1) wood wrapping press, with a maximum capacity of laminating 39.143 linear feet per hour, utilizing a high volume low pressure (HVLP) application system, with dry filters for control of particulate matter, exhausting to one (1) stack, identified as E1.
- (b) One (1) dualtech automated back sealing machine, identified as D1, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D2, exhausting to stack A1, a flash off tunnel exhausting to stack A2, and a hot air drying tunnel exhausting to stack A3.
- (c) One (1) rototech automated staining machine, identified as D3, with a maximum capacity of 3,900 board feet per hour, consisting of twenty (20) airless/air assist spray guns, with PM emissions controlled by dry filters, exhausting to stacks A4 and A5, and an infrared drying tunnel exhausting to stack A6.
- (d) One (1) dualtech automated sealing machine, identified as D4, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D5, exhausting to stack A7, with a flash off tunnel and a hot air drying tunnel exhausting to stack A8.
- (e) One (1) dualtech automated finishing machine, identified as D6, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D7, exhausting to stack A9, a flash off tunnel exhausting to stacks A10 and A11, a hot air drying tunnel exhausting to stack A12, and one (1) non-heated cooling hood exhausting to stack A13.
- (f) One (1) manual touch up booth, identified as TU1, with a maximum capacity of 1 gallon of stain, 2 gallons of sealer, and 2 gallons of topcoat per day, consisting of one (1) airless/air assist gun, with dry filters for control of particulate matter, exhausting to one (1) stack TU1.
- (g) One (1) MDF board laminating machine, utilizing a rollcoat application system, with a maximum capacity of 70 units per hour, with a baghouse/cyclone system to collect the large particulate matter, and exhausting to one (1) stack, identified as C5.
- (h) One (1) Corian surface coating line, utilizing a hand application method, with a maximum capacity of 0.75 units per hour, with a baghouse/cyclone system to collect the large particulate matter, and exhausting to one (1) stack, identified as C5.

Plant 2:

- (a) One (1) wood panel laminating machine, with a maximum capacity of 1,500 pounds of wood panels per hour, and exhausting inside the building; and
- (b) One (1) gypsum sheet laminating machine, with a maximum capacity of 2,250 pounds of gypsum sheets per hour, and exhausting inside the building.
- (c) Four (4) wood wrapping machines, with a maximum capacity of 280 pounds of wood styles per hour, and exhausting inside the building;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The automated staining, back sealing, and sealing machines, and the touch-up booth, and pursuant to CP-039-8835-00324, issued on December 29, 1997, the remaining surface coating facilities shall not exceed 41,500 pounds of VOC, including coatings, adhesives, dilution solvents, and cleaning solvents, per month. This usage limit is required to limit the potential to emit of VOC to less than 250 tons per twelve (12) consecutive month

period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

- (a) Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets in the MDF laminating machine, Corian process, the dualtech automated back sealing machine, the rototech automated staining machine, the dualtech sealing machine, and the touch-up booth shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating
- Brush or Wipe Application
- Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

- (b) The adhesive spray booth, the wood laminating machine, the gypsum laminating machine, and the wood wrapping machines shall comply with the requirements of 326 IAC 8-2-12, if any change or modification to any of these facilities would increase actual emissions from the facility to above fifteen (15) pounds per day.

D.1.3 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]

- (a) The wood furniture coating operation is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), with a compliance date of December 7, 1998.

- (b) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:

- (1) Limit the Volatile Hazardous Air Pollutants (VHAP) emissions from finishing operations as follows:

- (A) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of one (1.0) pound VHAP per pound solids; or
- (B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of one (1.0) pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a three percent (3.0%) maximum VHAP content by weight. All other thinners have a ten percent (10.0%) maximum VHAP content by weight; or
- (C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids; or
- (D) Use a combination of (A), (B), and (C).

- (2) Limit VHAP emissions contact adhesives as follows:

- (A) For foam adhesives used in products that meet the upholstered seating flammability

requirements, the VHAP content shall not exceed 1.8 pound VHAP per pound solids.

- (B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed one (1.0) pound VHAP per pound solids.
 - (C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids.
- (3) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids.

A copy of this rule is enclosed.

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2 the dualtech automated back-sealing, the rototech automated staining, the dualtech sealing machines, and the touch-up booth, and pursuant to CP-039-4472-00324, issued on August 8, 1995, CP-039-4803-00324, issued on November 14, 1995, and CP-039-8835-00324, issued on December 29, 1997, the PM from the laminating machines and the adhesive booth, E1 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.5 Work Practice Standards [40 CFR 63.803]

The owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum address each of the following work practice standards as defined under 40 CFR 63.803:

- (a) Operator training course.
- (b) Leak inspection and maintenance plan.
- (c) Cleaning and washoff solvent accounting system.
- (d) Chemical composition of cleaning and washoff solvents.
- (e) Spray booth cleaning.
- (f) Storage requirements.
- (g) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
- (h) Line cleaning.
- (i) Gun cleaning.
- (j) Washoff operations.
- (k) Formulation assessment plan for finishing operations.

D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)]

- (a) Pursuant to 40 CFR 63, Subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing must be conducted in accordance with 40 CFR 63, Subpart JJ and 326 IAC 3-6.
- (b) The Permittee is not required to test this facility by this permit. However, IDEM may require compliance

testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.7 Volatile Organic Compounds (VOC)

Compliance with the VOC usage limitation contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.8 VOC Emissions

Compliance with Condition D.1.1 shall be demonstrated at the end of each month based on the total volatile organic compound usage for the most recent month.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.9 Particulate Matter (PM)

- (a) Pursuant to CP-039-4472-00324, issued on August 8, 1995, CP-039-4803-00324, issued on November 14, 1995, and CP-039-8835-00324, issued on December 29, 1997, the dry filters and baghouse/cyclone system for PM control shall be in operation at all times when the associated equipment is in operation.
- (b) The dry filters, water walls and scrubbers for PM control for the automated surface coating machines and the touch-up spray booth shall be in operation at all times when the associated equipment is in operation.

D.1.10 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters, and to verify the correct operation of the water walls and the correct flow of water to the water walls. To monitor the performance of the PM controls, weekly observations shall be made of the overspray from the surface coating stacks while one or more of these processes are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from all surface coating stacks and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.1.12 Parametric Monitoring

The Permittee shall record the total static pressure drop across the scrubbers used in conjunction with the automated surface coating operations, at least once per shift when the associated machines are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the scrubbers shall be maintained within the range of 1 and 3 inches of water, or a range established for each during the latest stack tests. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.1.13 Scrubber Inspections

An inspection shall be performed each calendar quarter of the scrubbers controlling the surface coating finishing operations when venting to the atmosphere. A scrubber inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.1.14 Scrubber Failure

In the event that scrubber failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.15 Record Keeping Requirements

- (a) To document compliance with Condition D.1.3, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limits established in Condition D.1.3.
- (1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.
 - (2) The HAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.
 - (3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.
 - (4) The VHAP content in weight percent of each thinner used.
 - (5) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.
- (b) To document compliance with Conditions D.1.1 and D.1.2(b), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.1.
- (1) The amount and VOC content of each coating and adhesive material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each compliance period.
- (c) To document compliance with Condition D.1.11, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (d) To document compliance with Condition D.1.5, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.

- (e) To document compliance with Condition D.1.12, the Permittee shall maintain the following:
 - (1) Records, taken once per shift, of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure.
 - (2) Documentation of all response steps implemented, per event.
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
 - (8) Documentation of the dates vents are redirected.
- (f) To document compliance with Condition D.1.13, the Permittee shall maintain records of the results of the inspections required under Condition D.1.13, and the dates the vents are redirected.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.16 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (b) An Initial Compliance Report to document compliance with Condition D.1.3 and the Certification form, shall be submitted within sixty (60) days following the compliance date of December 7, 1998. The Initial Compliance Report must include data from the entire month that the compliance date falls.
- (c) A semi-annual Continuous Compliance Report to document compliance with Condition D.1.3 and the Certification form, shall be submitted within thirty (30) days after the end of the six (6) months being reported.

The six (6) month periods shall cover the following months:

- (1) January 1 through June 30.
 - (2) July 1 through December 31.
- (d) The reports required in (b) and (c) of this condition shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

Plant 1:

- (a) Woodworking equipment, with a maximum throughput of 25,000 pounds of wood per hour, using a cyclone/baghouse system to control particulate, and exhausting to one (1) stack, identified as B2;
- (b) Woodworking equipment, with a maximum throughput of 25,000 pounds of wood per hour, using a cyclone/baghouse system to control particulate, and exhausting to one (1) stack, identified as C5;
- (c) One (1) sawdust storage silo, with a capacity of 690 cubic yards, collecting sawdust from the control equipment, and venting to the atmosphere through one (1) cyclone, identified as C5.
- (d) Two (2) denibbers for D1, with maximum capacities of 3,900 board feet per hour with PM emissions collected by cyclone C5.
- (e) One (1) denibber for D4, with a maximum capacity of 3,900 board feet per hour, with PM emissions collected by cyclone C5.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the woodworking facilities exhausting to stack B2 shall not exceed 22.3 pounds per hour when operating at a process weight rate of 25,000 pounds per hour.
- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the woodworking facilities exhausting to stack C5 shall not exceed 22.3 pounds per hour when operating at a process weight rate of 25,000 pounds per hour.
- (c) The pounds per hour limitations were calculated with the following equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

D.2.2 Particulate Matter (PM) [326 IAC 2-7-5(1)]

Pursuant to 326 IAC 2-7-5(1), the area surrounding the storage silo shall be maintained free of sawdust.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

The following insignificant activities:

- (a) One (1) natural gas-fired boiler, rated at 0.4 MMBtu/hr, and exhausting to stack B1;
- (b) Three (3) natural gas-fired radiant heaters, each rated at 0.2 MMBtu/hr, and exhausting to stacks H1, H2 and H3, respectively; and
- (c) Three (3) natural gas-fired hot water boilers, identified as AB1, AB2, and AB3, with each rated at 1 MMBtu per hour, exhausting to stacks AB1, AB2, and AB3, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from the natural gas-fired boilers and each of the radiant heaters shall be limited to 0.6 pounds per MMBtu heat input when Q equals 4 MMBtu per hour.

This limitation is based on the fact that the following equation yields a limit greater than 0.6, but 326 IAC 6-2-4(a) states that the limitation shall not exceed 0.6 pounds per MMBtu heat input.

$$Pt = \frac{1.09}{Q^{0.26}} \quad \text{where } Pt = \text{emission rate limit (lbs/MMBtu)}$$

Q = total source heat input capacity (MMBtu/hr)

Compliance Determination Requirement

D.3.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for a Part 70 Significant Permit Modification

Source Name: **Adorn, Inc.**
 Source Location: **1808 West Hively Avenue, Elkhart Indiana 46517**
 County: **Elkhart**
 SIC Code: **2499**
 Operating Permit No.: **T039-7650-00324**
 Operation Permit Issuance Date: **October 6, 1998**
 Significant Permit Modification No.: **039-11565-00324**
 Permit Reviewer: **Melissa Groch**

On January 1, 2000, the Office of Air Management (OAM) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that Adorn, Incorporated had applied for a Part 70 Operating Permit Modification for a stationary wood counter top and cabinet manufacturing plant. The notice stated that OAM proposed to issue a significant permit modification for changes to this operation and provided information on how the public could review the proposed significant permit modification and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

For clarification purposes the IDEM, OAM, has made corrections to typographical errors found during the public notice period. These corrections are as follows (strikeout indicates deleted language, and new language is bolded):

1. The touch-up booth description has been added under item 2 of the cover letter for this significant permit modification. The description for this booth appeared only in the TSD during the public notice period, but should have also been included in the descriptions for the cover letter and new permit pages. It is now listed as letter (i) in the cover letter, and all subsequent equipment descriptions should have been written in the cover letter as follows:
 - (i) ~~One (1) Corian surface coating line, utilizing a hand application method, with a maximum capacity of 0.75 units per hour, and exhausting to one (1) stack, identified as C5.~~ **One (1) manual touch up booth, identified as TU1, with a maximum capacity of 1 gallon of stain, 2 gallons of sealer, and 2 gallons of topcoat per day, consisting of one (1) airless/air assist gun, with dry filters for control of particulate matter, exhausting to one (1) stack TU1.**
 - (j) One (1) MDF board laminating machine, utilizing a rollcoat application system, with a maximum capacity of 70 units per hour, and exhausting to one (1) stack, identified as C5; and
 - (k) One (1) Corian surface coating line, utilizing a hand application method, with a maximum capacity of 0.75 units per hour, and exhausting to one (1) stack, identified as C5.
 - (l) **Two (2) denibbers for D1, with maximum capacities of 3,900 board feet per hour with PM emissions collected by cyclone C5.**
 - (m) **One (1) denibber for D4, with a maximum capacity of 3,900 board feet per hour, with PM emissions collected by cyclone C5.**

Plant 2 (Nagy Drive):

- (j-n) Four (4) wood wrapping machines, with a maximum capacity of 280 pounds of wood styles per hour, and exhausting inside the building;
- (k-o) One (1) wood panel laminating machine, with a maximum capacity of 1,500 pounds of wood panels per hour, and exhausting inside the building; and
- (l-p) One (1) gypsum sheet laminating machine, with a maximum capacity of 2,250 pounds of gypsum sheets per hour, and exhausting inside the building.

This omission error has also been corrected in the permit pages for this First Significant Permit Modification. Specifically, Condition A.2 and the Section D.1 description box show this correction. This touch-up booth had initially been included in the technical review for this modification, as seen in the Technical Support Document, and in Conditions D.1.1, D.1.2, D.1.4, and D.1.9 of the draft permit pages that were on public notice.

2. In the Technical Support Document that was on public notice, the Emission Calculations section and the second sentence under the section for Permit Modifications should have cited 039-11334 as the document by which the source modification was processed under, instead of 039-11565. The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. Therefore, no changes have been made to the Technical Support Document.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Adorn, Inc.
Source Location:	1808 West Hively Ave., Elkhart, Indiana 46517
County:	Elkhart
SIC Code:	2499
Operation Permit No.:	T039-7650-00324
Operation Permit Issuance Date:	October 6, 1998
Significant Permit Modification No.:	039-11565-00324
Permit Reviewer:	Melissa Groch

The Office of Air Management (OAM) has reviewed a permit modification application from Adorn, Inc. relating to the construction of the following emission units and pollution control devices:

- (a) One (1) dualtech automated back sealing machine, identified as D1, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D2, exhausting to stack A1, a flash off tunnel exhausting to stack A2, and a hot air drying tunnel exhausting to stack A3.
- (b) One (1) rototech automated staining machine, identified as D3, with a maximum capacity of 3,900 board feet per hour, consisting of twenty (20) airless/air assist spray guns, with PM emissions controlled by dry filters, exhausting to stacks A4 and A5, and an infrared drying tunnel exhausting to stack A6.
- (c) One (1) dualtech automated sealing machine, identified as D4, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D5, exhausting to stack A7, and a flash off tunnel and a hot air drying tunnel exhausting to stack A8.
- (d) One (1) dualtech automated finishing machine, identified as D6, with a maximum capacity of 3,900 board feet per hour, consisting of eight (8) airless/air assist spray guns, with PM emissions controlled by a water wall and water scrubber system, identified as D7, exhausting to stack A9, a flash off tunnel exhausting to stacks A10 and A11, a hot air drying tunnel exhausting to stack A12, and one (1) non-heated cooling hood exhausting to stack A13.
- (e) One (1) manual touch up booth, identified as TU1, with a maximum capacity of 1 gallon of stain, 2 gallons of sealer, and 2 gallons of topcoat per day, consisting of one (1) airless/air assist gun, with dry filters for control of particulate matter, exhausting to one (1) stack TU1.
- (f) Four (4) process line denibbers and one (1) manual sanding suction table, collectively identified as D8, for surface coating machines D1, D3, D4, and D6, with PM emissions collected by cyclone C2, which routes to the existing cyclone/baghouse system C5.
- (g) Three (3) natural gas-fired hot water boilers, identified as AB1 through AB3, each rated at 1 MMBtu per hour, exhausting to stacks AB1 through AB3, respectively.

History

On September 13, 1999, Adorn, Inc., submitted an application to the OAM requesting to replace existing surface coating booths with automated machines at their existing plant. Adorn, Inc. was issued a Part 70 operating permit on October 6, 1998. The source modification has been reviewed as a minor source modification under document 039-11334-00324.

Source Definition

This stationary wood counter top and cabinet manufacturing company consists of two (2) plants:

- (a) Plant 1 is located at 1808 West Hively Avenue, Elkhart, Indiana 46517; and
- (b) Plant 2 is located at 57420 Nagy Drive, Elkhart, Indiana 46517.

Since the two (2) plants are considered adjacent, have the same SIC codes and are owned by one (1) company, they are considered one (1) source.

Enforcement Issue

There are no enforcement actions pending.

New Emission Unit Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
A1	water wall and scrubber D2	29	2	10593	80
A2	flash off tunnel for D1	29	1	1766	120
A3	hot air drying tunnel for D1	29	1	1206	120
A4	rototech staining, D3	29	4 by 6	5296	80
A5	rototech staining, D3	29	2	7062	80
A6	infrared drying tunnel for D3	29	1	1177	120
A7	water wall and scrubber D5	29	2 by 2	10593	80
A8	flash off and hot air drying tunnel for D4	29	1	1766	120
A9	water wall and scrubber D8	29	2 by 2	10593	80
A10	flash off tunnel for D7	29	1	3531	120
A11	flash off tunnel for D7	29	2 by 3	7062	120
A12	hot air drying tunnel for D7	29	1	1454	120
A13	cooling hood for D7	29	1	2236	80
AB1	hot water boiler AB1	29	1	1000	200
AB2	hot water boiler AB2	29	1	1000	200
AB3	hot water boiler AB3	29	1	1000	200
TU1	touch up booth TU1	29	2	4500	80

Recommendation

The staff recommends to the Commissioner that the Part 70 permit modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 13, 1999. Additional information was received on November 12, 1999, and on November 30, 1999.

Emission Calculations